AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1.(original) A hollow fiber plasma purification membrane, comprising a hydrophobic polymer and a hydrophilic polymer, having a sponge structure in which a pore size is continuously decreased from an outer surface to an inner surface of the membrane, and having a breaking stress of 50 kgf/cm^2 or more, and a total protein permeability of 50% or more and an immunoglobulin (IgM) permeability of 90% or less when subjecting bovine plasma to inside-out filtration.

2.(original) The hollow fiber plasma purification membrane according to claim 1, wherein the membrane has circular or elliptical pores having an average pore size of 1 μm or more on the outer surface of the membrane.

3.(currently amended) The hollow fiber plasma purification membrane according to claim 1 [[or 2]], wherein porosity of the outer surface of the membrane is 10% or more.

4.(currently amended) The hollow fiber plasma purification membrane according to ~~any one of claims 1 to 3~~ claim 1, wherein the membrane has a ratio of thickness to internal diameter of 0.15 to 0.4.

5.(currently amended) The hollow fiber plasma purification membrane according to ~~any one of claims 1 to 4~~ claim 1, wherein the membrane has an external diameter of 400 μm or less.

6.(currently amended) The hollow fiber plasma purification membrane according to ~~any one of claims 1 to 5~~ claim 1, wherein the membrane comprises an aromatic polysulfone and polyvinylpyrrolidone, and a polyvinylpyrrolidone concentration on the inner surface of the membrane of 20 to 45 wt%.

7.(original) The hollow fiber plasma purification membrane according to claim 6, wherein the polyvinylpyrrolidone has a weight average molecular weight of 900,000 or more.

8.(currently amended) The hollow fiber plasma purification membrane according to ~~any one of claims 1 to 7~~ claim 1, wherein the membrane comprises water-insoluble polyvinylpyrrolidone.

9.(currently amended) The hollow fiber plasma purification membrane according to ~~any one of claims 1 to 8~~ claim 1, wherein the membrane is used to treat a patient suffering from age-related macular degeneration.

10.(currently amended) The hollow fiber plasma purification membrane according to ~~any one of claims 1 to 8~~ claim 1, wherein the membrane is used to treat a patient suffering from hyperlipidemia.

11.(original) A method for producing a hollow fiber plasma purification membrane comprising a hydrophobic polymer and a hydrophilic polymer, having a sponge structure in which a pore size is continuously decreased from an outer surface to an inner surface of the membrane, and having a breaking stress of 50 kgf/cm^2 or more, and a total protein permeability of 50%

or more and an immunoglobulin (IgM) permeability of 90% or less when subjecting bovine plasma to inside-out filtration, comprising the steps of: discharging a membrane-forming solution and an internal solution from a double annular nozzle, passing the discharged mixture through an air gap, and coagulating the resulting mixture in a coagulation bath;

the method further characterized in that:

a) the membrane-forming solution comprises a hydrophobic polymer, a solvent for the hydrophobic polymer, and a hydrophilic polymer, and has a ratio of the hydrophilic polymer to the hydrophobic polymer of 27 to 60 wt%;

b) the internal solution comprises water and at least one solvent, and has a water content of 40 to 55 wt%;

c) the membrane-forming solution has a temperature of 50°C or more at the nozzle;

d) the coagulation bath has a temperature of 90 to 100°C; and

e) a ratio of the air gap to spinning speed is 0.01 to 0.1 m/(m/min).

12.(original) The method for producing a hollow fiber plasma purification membrane according to claim 11, further comprising the step of applying radiation to the membrane.

13.(currently amended) The method for producing a hollow fiber plasma purification membrane according to claim 11 [[or 12]], wherein the hydrophobic polymer is a polysulfone polymer.

14.(currently amended) The method for producing a hollow fiber plasma purification membrane according to ~~any one of claims 11 to 13~~ claim 11, wherein the solvent for the hydrophobic polymer is N-methyl-2-pyrrolidone.

15.(currently amended) The method for producing a hollow fiber plasma purification membrane according to ~~any one of claims 11 to 14~~ claim 11, wherein the spinning speed is 60 m/min or more.

16.(currently amended) A plasma purification system, comprising: a plasma separator including a separation membrane which separates blood into blood cell components and plasma components; a plasma component separator including a separation membrane which separates the separated plasma components into pathogenic substances and plasma components from which the pathogenic substances are removed or reduced; first mixing means for mixing the plasma components from which the pathogenic substances are removed or reduced with a replenishment solution; and second mixing means for further mixing the plasma components subjected to the first mixing means with the blood cell components separated by the plasma separator; wherein the separation membrane included in the plasma component separator is the membrane according to ~~any one of claims 1 to 10~~ claim 1.

17.(original) The plasma purification system according to claim 16, further comprising means for heating plasma upstream of the second mixing means for mixing the plasma components with the blood cell components.

18.(currently amended) The plasma purification system according to claim 16 [[or 17]], comprising means for heating or cooling plasma downstream of the plasma separator and upstream of the plasma component separator.

19.(currently amended) The plasma purification system according to ~~any one of claims 16 to 18~~ claim 16, wherein an amount of discharge liquid including the pathogenic substances

discharged from the plasma component separator is equal to an amount of the replenishment solution.

20.(currently amended) The plasma purification system according to ~~any one of claims 16 to 19~~ claim 16, which is controlled so that an amount of the plasma supplied from the plasma separator to the plasma component separator is equal to an amount of the plasma returned to the second mixing means.

21.(currently amended) The plasma purification system according to ~~any one of claims 16 to 20~~ claim 16, further comprising means for detecting bubbles in the blood downstream of the second mixing means and upstream of a blood outlet.

22.(currently amended) A plasma purification method, comprising using the plasma purification system according to ~~any one of claims 16 to 21~~ claim 16.

23.(currently amended) A method for treating disease, comprising treating blood of a living body using the plasma purification system according to ~~any one of claims 16 to 21~~ claim 16.

24.(currently amended) A method for treating a patient suffering from age-related macular degeneration, comprising using the plasma purification system according to ~~any one of claims 16 to 21~~ claim 16.

25.(currently amended) A method for treating a patient suffering from hyperlipidemia, comprising using the plasma purification system according to ~~any one of claims 16 to 21~~ claim 16.